



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/042,066	10/18/2001	Frederick M. Ausubel	00786/387003	3890
------------	------------	----------------------	--------------	------

21559 7590 04/25/2003

CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110

EXAMINER

PARAS JR, PETER

ART UNIT

PAPER NUMBER

1632

DATE MAILED: 04/25/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,066

Applicant(s)

AUSUBEL ET AL.

Examiner

Peter Paras, Jr.

Art Unit

1632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-86 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-86 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to a method for identifying a nematode having enhanced susceptibility to a pathogen comprising determining the survival of a mutagenized nematode when exposed to pathogen, classified in class 800, subclass 8.
- II. Claims 12-22, drawn to a method for identifying a pathogen defense response gene comprising exposing a mutagenized nematode to a pathogen, determining the survival of said nematode, wherein decreased survival indicates a mutation in a pathogen defense response gene, wherein the mutation is used as a marker to identify said pathogen defense response gene, classified in class 435, subclass 6.
- III. Claims 23-25 and 73-79, drawn to a method for identifying a nematode having enhanced susceptibility to a pathogen comprising providing a nematode comprising double-stranded RNA, wherein the dsRNA silences the expression of an endogenous gene, and determining the survival of said nematode when exposed to a pathogen, classified in class 800, subclass 8.
- IV. Claims 36-49, drawn to a method for identifying a pathogen defense response gene comprising providing a nematode comprising double-

stranded RNA, determining the survival of said nematode, wherein decreased survival indicates dsRNA silences a pathogen defense response gene, and determining the nucleic acid sequence of said dsRNA to identify the pathogen defense response gene, classified in class 435, subclass 6.

- V. Claims 50-51, 53-65, and 80-86, drawn to a method for identifying a compound that enhances a defense response to a pathogen, comprising exposing a nematode, having enhanced pathogen susceptibility to a test compound and a pathogen, and determining the survival of said nematode, wherein the nematode is mutagenized, classified in class 800, subclass 3.
- VI. Claims 50 and 52-65, drawn to a method for identifying a compound that enhances a defense response to a pathogen, comprising exposing a nematode, having enhanced pathogen susceptibility to a test compound and a pathogen, and determining the survival of said nematode, wherein the nematode comprises double-stranded RNA, classified in class 800, subclass 3.
- VII. Claims 66-72, drawn to a method for identifying a component of a MAPK signal transduction pathway conferring innate immunity to a nematode, comprising providing a nematode having a mutation in a component of a MAPK signal transduction pathway and a pathogen, determining the

survival of said nematode and identifying said MPAK component,
classified in class 435, subclass 4.

Although there are no provisions under the section for "Relationship of Inventions" in MPEP 806.05 for inventive groups that are directed to different methods, restriction is deemed to be proper between Groups I-VII because their methods appear to constitute patentably distinct inventions, each with a distinct purpose and further comprising distinct methodologies and using different products. For example, the method of Group I is directed to identifying a nematode having enhanced susceptibility to a pathogen and requires use of a mutagenized nematode; the method of Group II is directed to identifying a pathogen defense response gene in a mutagenized nematode; the method of Group III is directed to identifying a nematode having enhanced susceptibility to a pathogen and requires use of a nematode comprising double-stranded RNA, wherein the dsRNA silences the expression of an endogenous gene; the method of Group IV is directed to identifying a pathogen defense response gene in a nematode comprising double-stranded RNA; the method of Group V is directed to identifying a compound that enhances a defense response to a pathogen in a mutagenized nematode; the method of Group VI is directed to identifying a compound that enhances a defense response to a pathogen in a nematode comprising dsRNA; and the method of Group VII is directed to identifying a component of a MAPK signal transduction pathway conferring innate immunity to a nematode and requires use of a nematode having a mutation in a component of a MAPK signal transduction pathway.

Art Unit: 1632

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and separate search requirement, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1632

Any inquiry concerning this communication or earlier communications from the examiner(s) should be directed to Peter Paras, Jr., whose telephone number is 703-308-8340. The examiner can normally be reached Monday-Friday from 8:30 to 4:30 (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached at 703-305-4051. Papers related to this application may be submitted by facsimile transmission. Papers should be faxed via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center numbers are (703) 308-4242 and (703) 305-3014.

Inquiries of a general nature or relating to the status of the application should be directed to Dianiece Jacobs whose telephone number is (703) 305-3388.

Peter Paras, Jr.

Art Unit 1632

PETER PARAS
PATENT EXAMINER

A handwritten signature in cursive script that reads "Peter Paras".